

2. Product Specification

2-1 Product Specification

Features			
Block	Specification	Major IC	Remark
RF	Analog Tuner	Tuner (TDH6-K10A) DNOS403SH071A (S)	ALPS SEMCO
PDP Module	Samsung SDI WF3.5 UF1 FHD Samsung SDI WF2A	50" FHD 63" FHD	
Power	Input Voltage: AC 100~240V, 50/60Hz		
Video	Scaler	MT8226 /Media Tech	
	Video Decoder	STi7103/ STM	
Sound	Sound AMP	NTP3100	Neo Fidelity
	Audio CODEC	MT8291	Media Tech
Cabinet	750 Design		
Specification			
Model	PS50A756T1	PS63A756T1	
Dimensions (WxHxD)	1240.0 x 835.5 x 320 mm (With stand)	1531 x 1005 x 418 mm	
Weight	43.5 kg (With stand)	84 kg (with stand)	
Voltage	AC220-240V~, 50/60Hz		
PC Resolution	1920 x 1080 @60Hz		
Screen Size	50/63 inches (16:9)		
ANTENNA input	AIR IN (75Ω unbalanced)		
TV System	Tunning	Frequency Synthesize (Refer to detailed Frequency Table)	
	System	DVB-T, PAL, SECAM, NT4.43	
	Sound	BG, DK, NICAM, MPEG1	
VIDEO input	RF, AV, S-VIDEO, Scart1, 2, Component - 480i/p, 576i/p, 720p, 1080i/p PC IN (D-SUB 15p) HDMI1, 2, 3, 4 -480i/p, 576i/p, 720p, 1080i/p (HDMI2 : Support PC timing 640x350@70, 720x400@70, 640x480@60, 800x600@60, 1024x768@60, 1360x768@60, 1920x1080@60) USB -JPEG format		
AUDIO input	RF, AV, S-VIDEO, Component, PC, DVI, HDMI, USB(MP3 format)		
Audio Output	AUDIO (L/R)		
Speaker Output	10W + 10W		

■ MT8226

The MT8226 is a highly integrated chip with an ultra high-end HDTV-ready solution for the flat panel TV manufacturers. It supports flat panel TV multimedia video/audio input and output formats and future 1080P HDTV as well.

The MT8226 includes an advanced 3D comb filter of the TV decoder retrieving the best video from composite signals and embedded HDTV/VGA decoders perfectly reproducing the high bandwidth input signals. Also, a 24/16/8 bit digital port has been added that can accept a variety of external digital video inputs. 4th generation motion-adaptive deinterlacer converts interlace to progressive video. In addition, a 2D graphic processor can overlay on screen display (OSD) on the progressive video. Advanced full function color processing with a full 10-bit path provides high-quality video contents. Two independent flexible scalars can simultaneously process two different video sources and provide the wide adoption for various flat panels. An on-chip audio processor with a lip sync control decodes analog signals received from the tuner, delivering high-quality post-processed sound effect to customers. An on-chip microprocessor reduces the system BOM and shortens the schedule of UI design by high level C program.

■ NTP-3100

The NTP-3100 is a single chip full digital audio amplifier including power stages for stereo amplifier system. NTP-3100 is integrated with versatile digital audio signal processing functions, high-fidelity fully digital PWM modulator and two high-power full bridge MOSFET stages. The NTP-3100 receives 2-channel serial audio data with sampling frequency from 8 kHz to 192 kHz. It delivers 2x20W in stereo mode without heat sink.

The NTP-3100 has mixer and biquad filters which can be used to implement the essential audio signal processing functions like loudness control, loud speaker response compensation and parametric equalizers.

All the functions of the NTP-3100 can be controlled by internal register values via I2C host interface bus.

■ MT8291

The MediaTek MT8291E-L is a highly integrated stereo audio CODEC. The MT8291E-L performs stereo analog-to-digital and two digital-to-analog conversions with single-ended analog voltage input and output.

It's up to 24-bit serial values at sample rates up to 192 kHz. A 7:1 stereo input multiplexer and an automatic level control are included. The PGA is available for line inputs and provides gain/attenuation of 21dB in 0.5 steps. Two DAC outputs reach 2Vrms in a 12V supply environment including a headphone, two left/right line outputs with volume gain/attenuation from -127 dB to +12 dB and digital de-emphasis function. Sampled data is transmitted through the serial audio interface at various rates from 32 kHz to 192 kHz. For audio clock applications, the MT8291E-L supports master, slave modes and three data formats in the serial interface. Two individual sets of I2S ports including three clocks and digital data for each simultaneously support different sample rates for the ADC and DACs and then output from DAC1 and DAC2 independently.

■ TMDS351

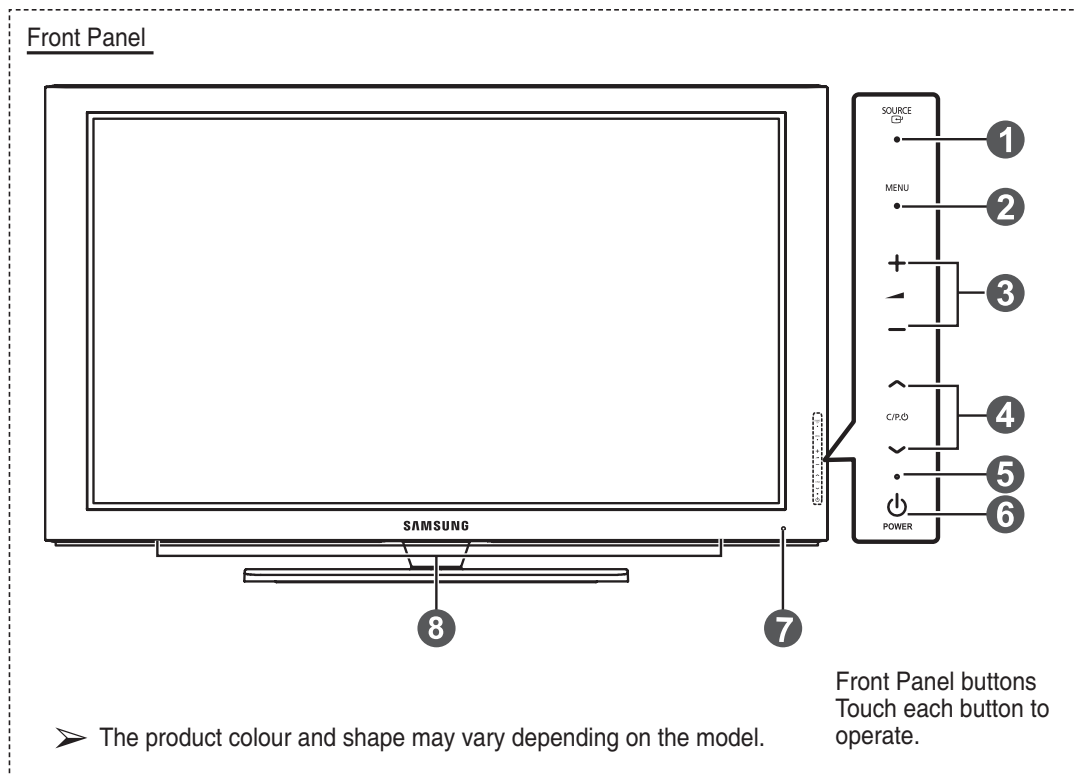
The TMDS351 is a 3-port digital video interface (DVI) or high-definition multimedia interface (HDMI) switch that allows up to 3 DVI or HDMI ports to be switched to a single display terminal. Four TMDS channels, one hot plug detector, and a digital display control (DDC) interface are supported on each port. Each TMDS channel supports signaling rates up to 2.5 Gbps to allow 1080p resolution in 12-bit color depth.

■ SAM7103

The SAM7103 is a new generation, high-definition decoder chip for iDTV applications, and provides very high performance for low-cost HD systems. SAM7103 includes both Windows Media™ Video 9 and H.264 video decoders for new, low bit rate applications.

■ Control Panel

Front (or Side) Panel

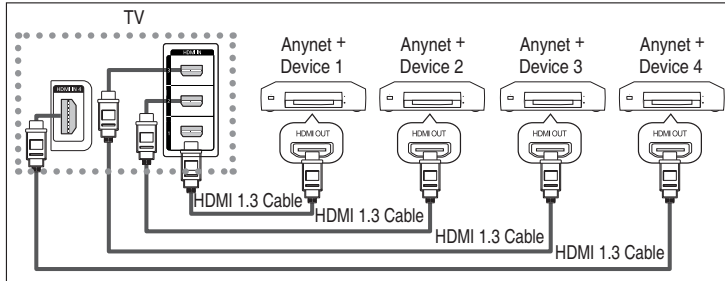


- | | |
|--|---|
| <p>1 SOURCE </p> <p>Toggles between all the available input sources (TV, Ext.1, Ext. 2, AV, S-Video, Component, PC, HDMI1, HDMI2, HDMI3, HDMI4, DTV).</p> <p>➤ In the on-screen menu, use this button as you would use the ENTER button on the remote control.</p> | <p>5 Power Indicator</p> <p>Blinks and turns off when the power is on and lights up in stand-by mode.</p> |
| <p>2 MENU</p> <p>Press to see an on-screen menu of your TV's features.</p> | <p>6 POWER </p> <p>Press to turn the TV on and off.</p> |
| <p>3 </p> <p>Press to increase or decrease the volume. In the on-screen menu, use the buttons as you would use the buttons on the remote control.</p> | <p>7 Remote Control Sensor</p> <p>Aim the remote control towards this spot on the TV.</p> |
| <p>4 C/P. </p> <p>Press to change channels. In the on-screen menu, use the buttons as you would use the buttons on the remote control.</p> | <p>8 Speakers</p> |

■ New Features explanation

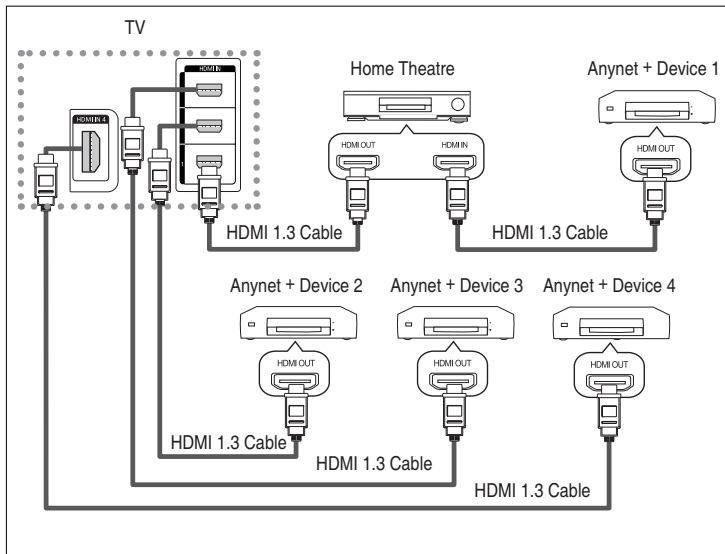
- Anynet+: Anynet+ is an AV network system that enables you to control all connected Samsung AV devices with your Samsung TV's remote.

To directly connect to TV



Connect the [HDMI 1], [HDMI 2], [HDMI 3] or [HDMI 4] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.

To connect to Home Theatre

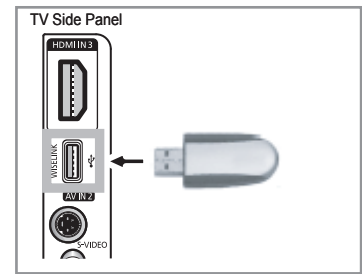


- 1 Connect the [HDMI 1], [HDMI 2], [HDMI 3] or [HDMI 4] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.
- 2 Connect the HDMI IN jack of the home theatre and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.

- Connect only the optical cable between [Digital Audio Out (Optical)] on your TV and Digital Audio Input on the receiver.
- Connect only one receiver.
- You can listen to 5.1 channel sound through the home theatre's speakers. Otherwise, you can only listen to 2 channel stereo sound in other cases. Make sure to connect the Digital Audio IN (Optical) of the home theatre and the TV correctly to listen to TV sound through the home theatre. However, you cannot listen to sound from the BD recorder that is sent to the home theatre via the TV in 5.1 channel sound because the TV outputs only 2 channel stereo sound. Please see the manual for the home theatre.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the Standby or On status.
- Anynet+ supports up to 8 AV devices in total.

- Using the WISELINK Function

This function enables you to view and listen to photo (JPEG) and audio files (MP3) saved on a USB Mass Storage Class (MSC) device. Press the **POWER** button on the remote control or front panel. Connect a USB device containing JPEG and/or MP3 files to the WISELINK jack (USB jack) on the side of the TV. If you enter the WISELINK mode with no USB device connected the message There is no device connected will appear. In this case, insert the USB device, exit the screen by pressing the **WISE LINK** button on the remote control and enter the WISELINK screen again.



Only alphanumeric characters must be used as a folder name or filename (photo, music).

The file system only supports FAT16/32 (The NTFS file system is not supported)

Certain types of USB Digital camera and audio devices may not be compatible with this TV.

Wiselink only supports the USB Mass Storage Class device (MSC). MSC is a Mass Storage Class Bulk- Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers (Both USB HDD and HUB are not supported.)

Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss. Recommended image resolution for Wiselink is 600 mega pixels.

Please connect directly to the USB port of your TV. If you are using a separate cable connection, there may be a USB Compatibility problem.

Only MP3 and JPEG file formats are supported.

The Wiselink mp3 format only supports music files with a high sampling frequency (32 kHz, 44.1 kHz, or 48 kHz).

We recommend the sequential jpeg format. Progressive jpeg uses a lot of memory and decoding may fail.

Do not disconnect the USB device while it is ().

Neither PTP (Picture Transfer Protocol) nor MTP (Media Transfer Protocol) is supported.

The playing duration of an mp3 file may be displayed as '00:00:00' if its playing time information is not found at the start of the file.



The higher the resolution of the image, the longer it takes to display on the screen.

If the horizontal resolution of an image is higher than 5000, it cannot be decoded.

If the vertical resolution of an image is higher than 4000, it cannot be decoded.

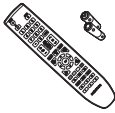






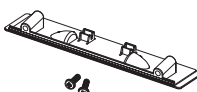




2-2 Specifications Analysis


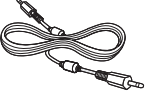

※ ○: application, ×: non-application

Model		PS50A756T1/PS63A756T1(TOPAZ2 FHD)		PS-50P96FD (Saffron-50FHD)
Design				
Basic	Display Type	PDP TV		PDP TV
	Built-In Tuner	○		○
	Resolution	1920 x 1080 @60Hz		1920 x 1080 @60Hz
	PDP Module	Samsung SDI UF1 FHD/WF2A		W2A FHD
	Screen Size	50 inches		50 inches
	Picture ratio	16 : 9		16 : 9
	Dimensions (WxHxD)	1240.0 x 833.5 x 320 mm	1531 x 1005 x 418 mm	1289.3 x 804 x 319.9 mm (With stand)
	Weight	43.5 kg (with Stand)	84 kg (with stand)	107 lbs / 49kg
Picture	Brightness	1,000 Cd/m2		1,000 Cd/m2
	Contrast Ratio	10,000 : 1		10,000 : 1
	Picture Enhancer	FBE3X		FBE2X
Audio	Equalizer	○		○
	Auto Volume Control	○		○
	Surround Sound	SRS TruSurround		SRS TruSurround
	Speaker Output	10W + 10W/ 15W + 15W		15W + 15W
	Speaker	2.2CH (2Way)		2.2CH (2Way)
Features	PIP	○		○
	Double Screen	○		○
	Caption	×		×
	Still Image	○		○
	My Color Control	○		○
	Color Weakness	×		×
	Energy Saving	○		○
	Screen Burn Protection	○		○
Connections	Antenna	1 Input		1 Input
	AV Input	1AV(Side)		1AV(Side)
	S-Video	1 Input (Side)		1 Input (Side)
	Component (Y/PB/PR)	1 Input		1 Input
	PC (D-SUB)	1 Input		1 Input
	DVI	○		○
	HDMI	4 Input		3 Input
	Scart	2 Input		2 Input
	Optical	○		○
	Coaxial	×		×

※ For the power supply and power consumption, refer to the label attached to the product.

2-3 Accessories

Accessories		Item	Item code	Remark
Supplied Accessories		Remote Control Batteries	BN59-00691A 4301-000103	Samsung Service center
		Power Cord	3903-000145	
		Owner's Instructions	BN68-01757D	
		Warranty Card Safety Guide Manual Registration Card	AA68-03724C AA68-03242P -	
		Cloth-Clean	BN63-01798B	
		Ferrite Core for Power Cord	3301-001305	
		Ferrite Core for Headphone	3301-001456	
		Cover-Bottom Screws (2ea)	BN63-03459B 6003-001621	
Accessories that can be purchased additionally		S-VIDEO Cable 1200mm	BN39-00149A	Electronics Store/ Internal shopping mall
		HDMI Cable 3000mm	BN39-00641A	
		HDMI/DVI cable 3000mm	BN39-00643A	
		Component Cables (RCA) 1500mm	BN39-00279A	

Accessories		Item	Item code	Remark
Accessories that can be purchased additionally		PC Cable 1830mm	BN39-00115A	Electronics Store/ Internal shopping mall
		PC Audio Cable 2000mm	BN39-00061B	
		Antenna Cable 3000mm	BN39-00333A	